

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-021861**Date Inspected:** 17-Mar-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Zhou Zhong Hai**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Segments**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Dan Hernandez was present during the times noted above to observe the fit up, welding and related activities associated with the fabrication of the San Francisco Oakland Bay Self Anchored Suspension Bridge at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

OBG Trial Assembly Yard

Segment 12AE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a UT repair on a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated CA601-002, Edge Plate to Deck Plate hold back weld. The welder is identified as #067752 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-345-4G (4F)-FCM-repair-1 for CWR2860.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated OBE12C-030, 033, Cantilever Bracket top and bottom flange to Edge Plate at panel point 112.5. The welder is identified as #044504 and was observed welding in the 1G (flat) position using approved Welding Procedure Specification WPS-B-P-2211-TC-U4b-FCM-1.

Segment 12BE

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This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated OBE12C-014, 017, Cantilever Bracket top and bottom flange to Edge Plate at panel point 113.5. The welder is identified as #044504 and was observed welding in the 1G (flat) position using approved Welding Procedure Specification WPS-B-P-2211-TC-U4b-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated OBE12C-018, 021, Cantilever Bracket top and bottom flange to Edge Plate at panel point 114.5. The welder is identified as #044504 and was observed welding in the 1G (flat) position using approved Welding Procedure Specification WPS-B-P-2211-TC-U4b-FCM-1.

Segment 12CE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated OBE12C-022, 025, Cantilever Bracket top and bottom flange to Edge Plate at panel point 115.5. The welder is identified as #067752 and was observed welding in the 1G (flat) position using approved Welding Procedure Specification WPS-B-P-2211-TC-U4b-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated OBE12C-026, 029, Cantilever Bracket top and bottom flange to Edge Plate at panel point 116.5. The welder is identified as #067752 and was observed welding in the 1G (flat) position using approved Welding Procedure Specification WPS-B-P-2211-TC-U4b-FCM-1.

For the above mentioned welding activities ZPMC Quality Control (QC) Inspector is identified as Wang Li Yang. The welding variables recorded by QC appeared to comply with the Applicable WPS.

Cross Beam 17

This QA Inspector observed ABF personnel performing Ultrasonic Testing on the Side Panel to Bottom Panel hold back weld at panel point 112 north end.

This QA Inspector observed fit up of bolted splice plates at panel point 110 with 12AE FL3 web for match drilling.

Segment 12BW

This QA Inspector observed fit up of Cantilever Brackets to the Edge Plate, cross beam side at panel point 114.5

Segment 12AE

This QA Inspector observed ABF personnel performing Magnetic Particle Testing on the root pass of Cantilever Bracket top and bottom flange to Edge Plate CJP weld joint at panel points 112.5.

Segment 12BE, 12CE

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This QA Inspector observed ABF personnel performing Magnetic Particle Testing on the root pass of Cantilever Bracket top and bottom flange to Edge Plate CJP weld joint at panel points 113.5, 114.5 for 12BE and 115.5, 116.5 for 12CE.

Segment 13AW

This QA Inspector observed ABF personnel performing Magnetic Particle Testing on the Bottom Plate at locations gouged during jig removal.

Mechanical Test Weld Lab

This QA Inspector observed Bend Testing for welder qualifications using the Shielded Metal Arc Welding (SMAW) process on the following personnel:

3G

501946 Yang Jun Ping

4G

051359 Bian Heng Gui
058087 Chen Ren Zhi
216086 Wang Zhen Bin
044760 Chen Chun Lin
204339 Zhu Ming Song
215553 Yang Yun Feng
050969 Gua Tao Tao
050232 Yin Xiao Kai
058102 Wang Chang Fa
201087 Wu Hai Jun
051946 Yang Jun Ping
205098 Xun Zi Chuan
045213 Mao li Wei

Radiographic Testing was not performed on welder qualification test coupons (non-SPCM qualification).

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 150-0042-2372 , who represents the Office of Structural Materials for your project.

Inspected By: Hernandez,Dan

Quality Assurance Inspector

Reviewed By: Miller,Mark

QA Reviewer